Technometrics

CONTENTS OF VOLUME 22
NUMBERS 85–88

ARTICLES 1, 139, 287, 453
BOOK REVIEWS 129, 277, 445, 631
CORRIGENDA 136, 285, 452

INDEX TO VOLUME 22 637
ARTICLES, BY AUTHOR 637
BOOKS REVIEWED, BY AUTHOR 639
LIST OF REVIEWERS 640
LIST OF CORRIGENDA 640

Index to Volume 22 (1980)

Articles, by Author

AFIFI, A. A. (See WOLDE-TSADIK, GIRMA) 367
AITKIN, MURRAY and WILSON, GRANVILLE TUNNICLIFFE, Mixture Models, Outliers, and the EM Algorithm 325
ASKIN, RONALD G. and MONTGOMERY, DOUGLAS C., Augmented Robust Estimators 333
BACON, DAVID W., Discussion of Multivariate Model Identification and Stochastic Control of a Chemical Reactor, by John F. MacGregor and A. K. L. Wong 465
BACON, DAVID W. (See TSANG, H. Y.) 509
BAILEY, B. J. R., Large Sample Simultaneous Confidence Intervals for the Multinomial Probabilities Based on Transformations of Cell Frequencies 583
BAIN, LEE J. and ENGELHARDT, MAX, Inferences on the Parameters and Current System Reliability for a Time Truncated Weibull Process 421
BAUER, PETER and HACKL, PETER, An Extension of the MOSUM Technique for Quality Control 1
BJØRNSTAD, JAN F., Comparison of Three Minimax Subset Selection Procedures 617
BROEMELING, L. D. (See CHIN CHOY, J. H.) 71
CARR, WENDELL E., Fisher's Exact Test Extended to More Than Two Samples of Equal Size 269
CHAN, LAI K. and RHODIN, LENNART S., Robust Estimation of Location Using Optimally Chosen Sample Quantiles 225
CHIN CHOY, J. H. and BROEMELING, L. D., Some Bayesian Inferences for a Changing Linear Model 71
CLEVELAND, WILLIAM S., Discussion of Extreme Values from a Nonstationary Stochastic Process: An Application to Air Quality Analysis, by Joel Horowitz 479
COOK, R. DENNIS and NACHTSHEIM, CHRISTOPHER J., A Comparison of Algorithms for Constructing Exact D-Optimal Designs 315
COOK, R. DENNIS and WEISBERG, SANFORD, Characteristics of an Empirical Influence Function for Detecting Influential Cases in Regression 495
CORNELIUS, PAUL L., Functions Approximating Mandel's Tables for the Means and Standard Deviations of the First Three Roots of a Wishart Matrix 613
DERRINGER, GEORGE C. (See SUICH, RONALD) 125
DEUTSCH, STUART J. (See PFEIFER, PHILLIP E.) 35
DEUTSCH, STUART J. (See PFEIFER, PHILLIP E.) 397
DOWNING, D. J., PIKE, D. H. and MORRISON, G. W., Application of the Kalman Filter to Inventory Control 17
DOWNING, DARRYL (See MAKOWSKI, GARY G.) 381
DOYLE, JAMES (See MCNOLTY, FRANK) 555
DRAPER, N. R. and JOHN, J. A., Testing for Three or Fewer Outliers in Two-Way Tables 9
DUDEWICZ, EDWARD J., Ranking (Ordering) and Selection: An Overview of How to Select the Best 113
DUDEWICZ, EDWARD J. (See LEE, YOUNG JACK) 121
DWIVEDI, T. D., SRIVASTAVA, V. K. and HALL, R. L., Finite Sample Properties of Ridge Estimators 205
ELDER, ROBERT S., THOMPSON, WILLIAM O. and MYERS, RAYMOND H., Properties of Composite Sampling Procedures 179
ENGELHARDT, MAX (See BAIN, LEE J.) 421
EPSTEIN, BENJAMIN (See KUBAT, PETER) 575
EVANS, I. G. and NIGM, A. H. M., Bayesian Prediction for the Left Truncated Exponential Distribution 201
FERTIG, K. W. and MANN, NANCY R., An Accurate Approximation to the Sampling Distribution of the Studentized Extreme Value Statistic 83
FERTIG, K. W. and MANN, NANCY R., Life-Test Sampling Plans for Two-Parameter Weibull Populations 165
FERTIG, K. W., MEYER, M. EUGENE, and MANN, NANCY R., On Constructing Prediction Intervals for Samples from a Weibull or Extreme Value Distribution 567
FOMBY, THOMAS B. (See HILL, R. CARTER) 127
FOX, TERRY, HINKLEY, DAVID and LARNTZ, KINLEY, Jackknifing in Nonlinear Regression 29
FRIES, ARTHUR and HUNTER, WILLIAM G., Minimum Aberration 2^{k-p} Designs 601
GALIL, Z. and KIEFER, J., Time- and Space-Saving Computer Methods, Related to Mitchell's DETMAX, for Finding D-Optimum Designs 301
GENTLEMAN, JANE F., Finding the K Most Likely Outliers in Two-Way Tables 591

GORMAN, JOHN W. (See ZIEGEL, ERIC R.) 139
GRAYBILL, FRANKLIN A. (See Jeyaratnam, S.) 375
GUPTA, SHANTI S. and HSU, JASON C., Subset Selection Procedures With Application to Motor Vehicle Fatality Data in a Two-Way Layout 543
GUTTMAN, IRWIN and KRAFT, CHARLES H., Robustness to Spurious Observations of Linearized Hodges-Lehmann Estimators and Anscombe Estimators 55
HACKL, PETER (See BAUER, PETER) 1
HAHN, GERALD J. (See MEEKER, WILLIAM Q., JR.) 357
HALL, R. L. (See DWIVEDI, T. D.) 205
HANSEN, ELDON (See MCNOLTY, FRANK) 555
HANSEN, JAMES N. and ZEGER, SCOTT, The Asymptotic Variance of the Estimated Proportion Truncated from a Normal Population 271
HARRIS, T. J., MACGREGOR, J. F. and WRIGHT, J. D., Self-Tuning and Adaptive Controllers: An Application to Catalytic Reactor Control 153
HAWKINS, DOUGLAS M., A Note on Continuous and Discontinuous Segmented Regressions 443
HILL, PETER D. H., D-Optimal Designs for Partially Nonlinear Regression Models 275
HILL, R. CARTER, JUDGE, GEORGE G. and FOMBY, THOMAS B., Is the Regression Equation Adequate?—A Reply 127
HINKLEY, DAVID (See FOX, TERRY) 29
HINTZE, J. L., On the Use of "Elemental Analysis" in Multivariate Variable Selection 609
HJORTH, URBAN, A Reliability Distribution With Increasing, Decreasing, Constant and Bathtub-Shaped Failure Rates 99
HOROWITZ, JOEL, Extreme Values from a Nonstationary Stochastic Process: An Application to Air Quality Analysis 469
Response 482
HSU, JASON C. (See GUPTA, SHANTI S.) 543
HUNTER, WILLIAM G. (See FRIES, ARTHUR) 601
JEYARATNAM, S. and GRAYBILL, FRANKLIN A., Confidence Intervals on Variance Components in Three-Factor Cross-Classification Models 375
JOHN, J. A. (See DRAPER, N. R.) 9
JONES, RICHARD H., Maximum Likelihood Fitting of ARMA Models to Time Series With Missing Observations 389
JUDGE, GEORGE G. (See HILL, R. CARTER) 127
KIEFER, J. (See GALIL, Z.) 301
KOZIOL, JAMES A., Percentage Points of the Asymptotic Distributions of One and Two Sample Kuiper Statistics for Truncated or Censored Data 437
KRAFT, CHARLES H. (See GUTTMAN, IRWIN) 55
KUBAT, PETER and EPSTEIN, BENJAMIN, Estimation of Quantiles of Location-Scale Distributions Based on Two or Three Order Statistics 575
LARNTZ, KINLEY (See FOX, TERRY) 29
LARSON, STEVEN F. (See RENCHER, ALVIN C.) 349
LAWLESS, J. F., Inference in the Generalized Gamma and Log Gamma Distributions 409
LEE, LARRY, Testing Adequacy of the Wiebull and Log Linear Rate Models for a Poisson Process 195
LEE, LARRY, Comparing Rates of Several Independent Weibull Processes 427
LEE, S. C. S., LOCKE, CHARLES and SPURRIER, JOHN D., On a Class of Tests of Exponentiality 547
LEE, YOUNG JACK, Nonparametric Selection in Blocked Data: Application to Motor Vehicle Fatality Rate Data 535
LEE, YOUNG JACK and DUDEWICZ, EDWARD J., Awardee Selection Procedures, With Special Reference to the Frank Wilcoxon and Jack Youden Prizes 121
LIKEŠ, JIŘÍ, Variance of the MVUE for Lognormal Variance 253
LIN, CHING-CHUONG and MUDHOLKAR, GOVIND S., A Test of Exponentiality Based on the Bivariate F Distribution 79
LOCKE, CHARLES (See LEE, S. C. S.) 547
LORENZEN, THOMAS J., Determining Statistical Characteristics of a Vehicle Emissions Audit Procedure 483
MACGREGOR, J. F. (See HARRIS, T. J.) 153
MACGREGOR, JOHN F. and WONG, A. K. L., Multivariate Model Identification and Stochastic Control of a Chemical Reactor 453
Response 468
MAGE, DAVID T., An Explicit Solution for S_B Parameters Using Four Percentile Points 247
MAKOWSKI, GARY G. and DOWNING, DARRYL, Confidence Interval Calibration of a Standard Curve 381
MANN, NANCY R. (See FERTIG, K. W.) 83
MANN, NANCY R. (See FERTIG, K. W.) 165
MANN, NANCY R. (See FERTIG, K. W.) 567
MAZUMDAR, M., An Optimum Component Testing Procedure for a Series System With Redundant Subsystems 23
MCLACHLAN, G. J., A Note on Bias Correction in Maximum Likelihood Estimation With Logistic Discrimination 621
MCNOLTY, FRANK, DOYLE, JAMES and HANSEN, ELDON, Properties of the Mixed Exponential Failure Process 555
MEEKER, WILLIAM Q., JR. and HAHN, GERALD J., Prediction Intervals for the Ratios of Normal Distribution Sample Variances and Exponential Distribution Sample Means 357
MEYER, M. EUGENE (See FERTIG, K. W.) 567
MILLER, ROBERT B., Bayesian Analysis of the Two-Parameter Gamma Distribution 65
MOBERG, THOMAS F., RAMBERG, JOHN S. and RANDLES, RONALD H., An Adaptive Multiple Regression Procedure Based on M-Estimators 213
MONTGOMERY, DOUGLAS C. (See ASKIN, RONALD G.) 333
MORRISON, G. W. (See DOWNING, D. J.) 17
MUDHOLKAR, GOVIND S. (See LIN, CHING-CHUONG) 79
MYERS, RAYMOND H. (See ELDER, ROBERT S.) 179
NACHTSHEIM, CHRISTOPHER J. (See COOK, R. DENNIS) 315

NEWBY, M. J., The Properties of Moment Estimators for the Weibull Distribution Based on the Sample Coefficient of Variation.. 187
NIGM, A. H. M. (See EVANS, I. G.).... 201
PFEIFER, PHILLIP E. and DEUTSCH, STUART JAY, A Three-Stage Iterative Procedure for Space-Time Modelling.... 35
PFEIFER, PHILLIP E. and DEUTSCH, STUART JAY, Identification and Interpretation of First Order Space-Time ARMA Mod 's.... 397
PIKE, D. H. (See DOWNING, D. J.).... 17
PUN, FU CEAYONG (See RENCHER, ALVIN C.).... 49
RAMBERG, JOHN S. (See MOBERG, THOMAS F.).... 213
RANDLES, RONALD H. (See MOBERG, THOMAS F.).... 213
RENCHER, ALVIN C. and LARSON, STEVEN F., Bias in Wilks' Λ in Stepwise Discriminant Analysis.... 349
RENCHER, ALVIN C. and PUN, FU CEAYONG, Inflation of R^2 in Best Subset Regression.... 49
RHODIN, LENNART S. (See CHAN, LAI K.).... 225
RUBIN, DONALD B., Composite Points in Weighted Least Squares Regressions.... 343
SALVIA, ANTHONY A., Some Fundamental Properties of Kolmogorov-Smirnov Consonance Sets.... 109
SHAPIRO, SAMUEL S. (See SLIFKER, JAMES F.).... 239
SKILLINGS, JOHN H., On the Null Distribution of Jonckheere's Statistic Used in Two-Way Models for Ordered Alternatives.... 431
SLIFKER, JAMES F. and SHAPIRO, SAMUEL S., The Johnson System: Selection and Parameter Estimation.... 239
SPURRIER, JOHN D. (See LEE, S. C. S.).... 547
SRIVASTAVA, V. K. (See DWIVEDI, T. D.).... 205
SUICH, RONALD and DERRINGER, GEORGE C., Is the Regression Equation Adequate?—A Further Note.... 125
THOMPSON, WILLIAM O. (See ELDER, ROBERT S.).... 179
TITTERINGTON, D. M., A Comparative Study of Kernel-Based Density Estimates for Categorical Data.... 259
TITTERINGTON, D. M., Aspects of Optimal Design in Dynamic Systems.... 287
TROXELL, JOSEPH R., Suspension Systems for Small Sample Inspections.... 517
TSANG, H. Y. and BACON, DAVID W., Detection of Unsuspected Feedback in Linear Dynamic Systems.... 509
WEISBERG, SANFORD (See COOK, R. DENNIS).... 495
WILSON, GRANVILLE TUNNICLIFFE (See AITKIN, MURRAY).... 325
WOLDE-TSADIK, GIRMA and AFIFI, A. A., A Comparison of the "Sometimes Pool", "Sometimes Switch" and "Never Pool" Procedures in the Two-Way ANOVA Random Effects Model.... 367
WONG, A. K. L. (See MACGREGOR, JOHN F.).... 453
WRIGHT, J. D. (See HARRIS, T. J.).... 153
ZEGER, SCOTT (See HANSEN, N.).... 271
ZIEGEL, ERIC R. and GORMAN, JOHN W., Kinetic Modelling With Multiresponse Data.... 139

Books Reviewed, by Author

ANDERSON, O. D. (Ed.), *Forecasting*.... J. EDWARD JACKSON 281
ANDERSON, O. D. (Ed.), *Time Series: Proceedings of the International Conference Held at Nottingham University, March 1979*.... PAUL I. FEDER 446
BARNDORFF-NIELSEN, O., *Information and Exponential Families in Statistical Theory*.... A. M. MATHAI 280
BARNETT, V. and LEWIS, T., *Outliers in Statistical Data*.... W. R. YOUNG 631
BIRNBAUM, Z. W., *On the Mathematics of Competing Risks*.... ROBERT G. EASTERLING 131
BRUNNER, K. and MELTZER, A. H. (Eds.), *Three Aspects of Policy and Policymaking: Knowledge, Data and Institutions*.... J. EDWARD JACKSON 134
CASSEL, C., SARNDAL, C. and WRETMAN, J., *Foundations of Inferences in Survey Sampling*.... PODURI S. R. S. RAO 279
CLARKE, G. M. and COOKE, D., *A Basic Course in Statistics*.... R. R. STONE 632
DANIEL, W. W., *Biostatistics: A Foundation for Analysis in the Health Sciences, 2nd Edition*.... PETER F. HEIL 280
DERTOUGOS, M. L. and MOSES, J. (Eds.), *The Computer Age*.... J. EDWARD JACKSON 281
DOKTOR, R. SCHULTZ, R. L. and SLEVIN, D. P. (Eds.), *TIMS Studies in the Management Sciences, Vol. 13: The Implementation of Management Science*.... PAUL I. FEDER 447
DUNN, OLIVE JEAN, *Basic Statistics: A Primer for the Biomedical Sciences, 2nd Edition*.... MAX H. MYERS 445
GOKHALE, D. V. and KULLBACK, S., *The Information in Contingency Tables*.... C. L. ODOROFF 632
GOODMAN, L. A. and KRUSKAL, W. H., *Measures of Association for Cross Classifications*.... J. EDWARD JACKSON 280
GREEN, J. R. and MARGERISON, D., *Statistical Treatment of Experimental Data*.... OLGA P. HACKNEY 131
GUPTA, M. M., RAGADE, R. K. and YAGER, R. R., *Advances in Fuzzy Set Theory and Applications*.... V. K. ROHATGI 632
HAMBURG, M., *Basic Statistics, 2nd Edition*.... J. SINGH 634
HOPKINS, K. D. and GLASS, G. V., *Basic Statistics for the Behavioral Sciences*.... PETER F. HEIL 280
JENKINS, G. M., *Practical Experiences With Modelling and Forecasting Time Series*.... RONALD E. SWANSON 277
JESSEN, R. J., *Statistical Survey Techniques*.... BARBARA A. BAILAR 132
KALLENBERG, W. C. M., *Asymptotic Optimality of Likelihood Ratio Tests in Exponential Families*.... P. K. SEN 633
KHAZANIE, R., *Elementary Statistics in a World of Applications*.... R. R. STONE 632
KRAFT, O., *Linear Statistical Models and Optimal Designs*.... KURT ENSLEIN 131
KRISHNAIAH, P. R. (Ed.), *Multivariate Analysis—V: Proceedings of the Fifth International Symposium on Multivariate Analysis*.... PAUL I. FEDER 447
LAUNER, R. L. and WILKINSON, G. H. (Eds.), *Robustness in Statistics*.... J. EDWARD JACKSON 133
LEACH, CHRIS, *Introduction to Statistics: A Nonparametric Approach for the Social Sciences*.... JOHN E. BOYER, JR. 445
LLOYD, D. K. and LIPOW, M., *Reliability: Management, Methods, and Mathematics, Second Edition*.... NICHOLAS ZAINO, JR. 131

MANDL, P. and HUŠKOVÁ, M. (Eds.), *Proceedings of the Second Prague Conference on Asymptotic Statistics* ..... PAUL I. FEDER 448
MOESCHLIN, O. and PALLASCHKE, D. (Eds.), *Game Theory and Related Topics* ..... J. EDWARD JACKSON 282
NASH, J. C., *Compact Numerical Methods for Computers: Linear Algebra and Function Minimization* ..... PETER CASTRO 132
PITMAN, E. J. G., *Some Basic Theory for Statistical Inference* ..... J. A. HARTIGAN 633
POLLOCK, D. S. G., *The Algebra of Econometrics* ..... J. EDWARD JACKSON 634
ROWE, W. D., *An Anatomy of Risk* ..... ROBERT G. EASTERLING 278
RUSTAGI, J. S. (Ed.), *Optimizing Methods in Statistics* ..... J. EDWARD JACKSON 634
SANDERS, D. H., MURPH, R. F. and ENG, R. J., *Statistics, A Fresh Approach* ..... J. SINGH 634
SEAL, HILARY, L., *Survival Probabilities: The Goal of Risk Theory* ..... PETER F. HEIL 445
SEBER, G. A. F., *Linear Regression Analysis* ..... DOUGLAS C. CROCKER 130
SINGER, B., *Distribution-Free Methods for Non-Parametric Problems: A Classified and Selected Bibliography* ..... J. EDWARD JACKSON 280
SOLOMON, HERBERT, *Geometric Probability* ..... M. M. SIDDIQUI 446
TUKEY, J. W., *Exploratory Data Analysis* ..... J. T. SMITH and M. P. GRIFFIN 129
ZUWAYLIF, F. H., *General Applied Statistics, 3rd Edition* ..... J. SINGH 634

List of Reviewers

BAILAR, BARBARA A. 132
BOYER, JR., JOHN E. 445
CASTRO, PETER 132
CROCKER, DOUGLAS C. 130
EASTERLING, ROBERT G. 131, 278
ENSLEIN, KURT 131
FEDER, PAUL I. 446, 447, 447, 448
GRIFFIN, M. P. 129
HACKNEY, OLGA P. 131
HARTIGAN, J. A. 633
HEIL, PETER F. 280, 280, 445
JACKSON, J. EDWARD 133, 133, 134, 280, 280, 281, 281, 282, 634
MATHAI, A. M. 280
MYERS, MAX H. 445
ODOROFF, C. L. 632
RAO, PODURI S. R. S. 279
ROHATGI, V. K. 632
SEN, P. K. 633
SIDDIQUI, M. M. 446
SINGH, J. 634, 634, 634
SMITH, J. T. 129
STONE, R. R. 632, 632
SWANSON, RONALD E. 277
YOUNG, W. R. 631
ZAINO, JR., NICHOLAS 131

List of Corrigenda Published in Vol. 22 (1980)

Article	*Correction found on page:*
DAVIS, A. W., *On Certain Ratio Statistics in Weather Modification Experiments, Technometrics, 21*, 283–289	136
GABRIEL, K. R. and ZAMIR, S., *Lower Rank Approximation of Matrices by Least Squares With Any Choice of Weights, Technometrics, 21*, 489–498	136
JACKSON, J. EDWARD and MUDHOLKAR, GOVIND S., *Control Procedures for Residuals Associated With Principal Components Analysis, Technometrics, 21*, 341–349	136
LEONE, F. C., NELSON, L. S. and NOTTINGHAM, R. B., *The Folded Normal Distribution, Technometrics, 3*, 543–550	452
MCDONALD, GARY C., *Nonparametric Selection Procedures Applied to State Traffic Fatality Rates, Technometrics, 21*, 515–523	285
NARULA, S. and WELLINGTON, J., *Prediction, Linear Regression and Minimum Sum of Relative Errors, Technometrics, 19*, 185–190	450, 452
NARULA, SUBHASH C. and WELLINGTON, JOHN F., *Selection of Variables in Linear Regression Using the Minimum Sum of Weighted Absolute Errors Criterion, Technometrics, 21*, 299–306	452
WEINMAN, D. G., DUGGER, G., FRANK, W. E. and HEWETT, J. E., *On a Test for the Equality of Two Exponential Distributions, Technometrics, 15*, 177–182	284
WHITE, J. W. and GUNST, R. F., *Latent Root Regression: Large Sample Analysis, Technometrics, 21*, 481–488	452